

Comparisons of Job Characteristics

Focus Occupation: [Millwrights \(49-9044\)](#)

Associated Occupation: [Mobile Heavy Equipment Mechanics, Except Engines \(49-3042\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 89

Focus Occupation: Millwrights (49-9044)

Associated Occupation: Mobile Heavy Equipment Mechanics, Except Engines (49-3042)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Mechanical	6.8	23.6	22.9	0 Current knowledge level may be sufficient
Engineering and Technology	5.7	10.2	11.2	0 Current knowledge level may be sufficient
Physics	4.3	7.9	9.7	> Current knowledge level is likely sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 66

Focus Occupation: Millwrights (49-9044)

Associated Occupation: Mobile Heavy Equipment Mechanics, Except Engines (49-3042)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Troubleshooting	4.5	13.6	11.1	< A higher skill level may be required
Repairing	3.4	13.2	11.1	< A higher skill level may be required
Equipment Maintenance	3.5	12.9	11.9	0 Current skill level may be sufficient
Operation Monitoring	6.6	11.9	11.6	0 Current skill level may be sufficient
Quality Control Analysis	5.9	11.9	9.8	< A higher skill level may be required
Operation and Control	5.4	10.8	10.0	0 Current skill level may be sufficient
Equipment Selection	3.3	9.3	7.6	< A higher skill level may be required
Management of Material Resources	3.7	6.4	3.4	<< Extensive development of skills in this area may be required
Installation	1.7	6.0	13.7	>> Skill level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 91			
Focus Occupation: Millwrights (49-9044) Associated Occupation: Mobile Heavy Equipment Mechanics, Except Engines (49-3042)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Control Precision	6.6	13.9	12.5	<	Some improvement in abilities may be required
Multilimb Coordination	6.0	13.5	12.2	<	Some improvement in abilities may be required
Extent Flexibility	4.8	13.4	11.4	<	Some improvement in abilities may be required
Manual Dexterity	6.5	13.0	11.9	0	Current ability level may be sufficient
Finger Dexterity	7.6	12.9	12.0	0	Current ability level may be sufficient
Visualization	7.5	12.2	12.0	0	Current ability level may be sufficient
Reaction Time	4.8	11.4	10.2	<	Some improvement in abilities may be required
Hearing Sensitivity	5.6	11.0	9.4	<	Some improvement in abilities may be required
Response Orientation	4.0	9.4	9.4	0	Current ability level may be sufficient
Sound Localization	2.2	5.8	4.4	<	Some improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 89
Focus Occupation: Millwrights (49-9044) Associated Occupation: Mobile Heavy Equipment Mechanics, Except Engines (49-3042)		
Work Activities	Exclusivity of Activity	
Adhere to safety procedures	12	
Adjust or set mechanical controls or components	69	
Align or adjust clearances of mechanical components or parts	72	
Assemble, dismantle, or reassemble equipment or machinery	70	
Conduct tests to locate mechanical system malfunction	71	
Determine installation, service, or repair needed	58	
Diagnose mechanical problems in machinery or equipment	65	
Fabricate sheet metal parts or items	80	
Fabricate, assemble, or disassemble manufactured products by hand	11	
Lubricate machinery, equipment, or parts	59	
Maintain or repair industrial or related equipment/machinery	39	

Maintain welding machines or equipment	70
Move or fit heavy objects	8
Operate hoist, winch, or hydraulic boom	34
Operate pneumatic test equipment	82
Perform safety inspections in industrial, manufacturing or repair setting	32
Read blueprints	10
Read schematics	34
Read technical drawings	7
Read work order, instructions, formulas, or processing charts	9
Repair or replace malfunctioning or worn mechanical components	62
Set up and operate variety of machine tools	62
Test mechanical products or equipment	56
Understand service or repair manuals	40
Understand technical operating, service or repair manuals	6
Use acetylene welding/cutting torch	54
Use arc welding equipment	62
Use combination welding procedures	68
Use control or regulating devices to adjust or maintain industrial machinery	89
Use electrical or electronic test devices or equipment	40
Use hand or power tools	2
Use knowledge of metric system	39
Use knowledge of welding filler rod types	75
Use machine tools in installation, maintenance, or repair	72
Use measuring devices in repairing industrial or heavy equipment	84
Use precision measuring devices in mechanical repair work	61
Use soldering equipment	44
Weld together metal parts, components, or structures	54

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 87

Focus Occupation: Millwrights (49-9044)

Associated Occupation: Mobile Heavy Equipment Mechanics, Except Engines (49-3042)

Tools and Technologies	Exclusivity
Business function specific software	1
Compressors	9
Computers	1
Cutting and crimping and punching tools	3
Dispensing tools	6
Face and head protection	7
Fastener setting tools	12
Forming tools	2
Hearing protectors	12

Holding and clamping tools	3
Indicating and recording instruments	2
Industry specific software	1
Integrated circuits	18
Length and thickness and distance measuring instruments	2
Lifting equipment and accessories	3
Machine tools	7
Marking tools	11
Measuring and layout tools	3
Mechanical instruments	14
Non destructive examination equipment	13
Power tools	2
Pressure measuring and control instruments	10
Prying and bending tools	10
Respiratory protection	6
Rough and finishing tools	5
Safety apparel	4
Sealing tools	21
Soldering and brazing and welding machinery and supplies	6
Special tooling fixtures	16
Transportation related equipment and instruments	29
Viewing and observing instruments and accessories	4
Vision protection and accessories	3
Wrenches and drivers	2

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.